

## Patent claims

1. A method for interior-space/exterior-space  
5 detection of a response transmitter (20) which  
communicates in wire-free fashion with a base station  
(8), walls (4) of an interior space (2) being  
impermeable to a frequency range, in which method two  
frequency ranges are used for the communication between  
10 the base station (8) and the response transmitter (20),  
the walls (4) of the interior space (2) being permeable  
to a first frequency range and impermeable to a second  
frequency range.

2. The method as claimed in claim 1, the  
15 communication from the response transmitter (20) to the  
base station (8) taking place in the first frequency  
range.

3. The method as claimed in claim 1 or 2, the base station (8) transmitting a communication signal in the first frequency range and a location interrogation signal in the second frequency range.

4. The method as claimed in one of claims 1 to 3,  
the base station (8) transmitting location  
interrogation signals selectively from inside or  
25 outside the interior space (2).

5. The method as claimed in claims 3 or 4, the response transmitter (20) being woken up using the location interrogation signal.

6. A communications system containing a base station (8) with a transmitter/receiver unit (10) for communication signals and a transmitter unit (14) for location interrogation signals, a response transmitter (20) with a transmitter/receiver unit (22) for the communication signals and a receiver unit (26) for location interrogation signals, and an interior space (2) whose walls (4) are impermeable to one frequency range, the communication signals being transmitted and

5     7.     The communications system as claimed in  
claim 6, the base station (8) having a transmitter  
antenna (12) outside the interior space and a  
transmitter antenna (16) inside the interior space.

9. The communications system as claimed in  
15 claim 8, the communications system being a component of  
an anti-theft system of a motor vehicle, the base  
station (8) being in the motor vehicle and the response  
transmitter (20) being carried by a person.